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ABSTRACT

A description of a possible new minimum foundation program for public education in North Dakota is contained in this document. The State Foundation Program, suggested in 1967, is the financial instrument whereby the state guarantees each child an opportunity to acquire an appropriate and adequate public education. Elements of the desired new foundation program are described, and means are suggested whereby the program might be introduced into the state at an early date. Background information relative to the level of support, the financial system, and the financial plan existing in North Dakota is offered. Program cost, unit cost figures, and implementation and administration of the foundation program are also discussed. Related documents are RC 000 179, RC 000 180, RC 004 196, RC 004 198, and RC 004 199. (SW)

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A Plan of Public Expenditure For Education in North Dakota

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A Product of the
Statewide Study of Education

THE FOUNDATION PROGRAM

RC004197

The North Dakota Statewide Study of Education

THE NORTH DAKOTA DEPARTMENT OF PUBLIC INSTRUCTION
THE NORTH DAKOTA LEGISLATIVE RESEARCH COMMITTEE
THE UNIVERSITY OF NORTH DAKOTA
1967

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A Plan of Public Expenditure for Education in North Dakota

The Foundation Program

A Product of the
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PREFACE

This document contains a description of a possible new **Minimum Foundation Program** for public education in North Dakota. The suggested new Program is the principal element of a comprehensive plan for educational development of elementary and secondary education. The comprehensive plan is described in **Educational Development for North Dakota, 1967-1975: An Overview.** The overall plan is designed specifically to achieve these objectives:

(1) To consolidate and focus the energies of the State's public colleges and universities in a dramatic new program of personnel development, research, and service, thereby to make the classroom teacher a vital part of a continuing research and improvement effort.

(2) To prepare and place 1,950 fully qualified and specifically prepared teachers into the State's elementary schools, thereby to improve the quality of education for elementary school children who otherwise would be taught by under-prepared teachers (as 23,000 students now are taught).

(3) To place each of North Dakota's 144,000 school children in a reasonably organized and administratively effective school district; each such district to contain at least 12 grades of instruction, and its high school to enroll not fewer than 215 pupils in the upper four grades.

(4) To enlarge the scope, focus, and effectiveness of educational services offered by the State Department of Public Instruction, through seven regional service centers; each such center to be designed to energize and facilitate local district study, planning, evaluation, reorganization, and program improvement.

(5) To upgrade the level of financial support for the normal and ordinary recurring costs of public education; this requires an improved State Foundation Program that (a) reduces inequities among local school districts and (b) enables school districts to use local tax funds more freely for program improvements over and beyond the State-guaranteed minimum (for example, for public kindergartens).

(6) To shift to State Government the responsibility for the extraordinary costs of educational services: the extraordinary costs now are divided inequitably among local districts for such items as school construction, debt service, transportation, and special services for rural isolated pupils.

(7) To employ State funds to reward those local school districts that take the initiative to improve the quality and efficiency of their operations; an appropriate reward would make State aid directly proportionate to the number of qualified teachers that a district employs.

A new Minimum Foundation Program is needed to achieve these objectives in the State. The purpose of this document is to describe

the elements of a desired new Foundation Program, and to suggest means whereby it might be introduced into the State at an early date.

A new Foundation program alone, however, will not solve the State's basic education problems. The proposed Foundation Program's effectiveness depends largely upon two companion efforts. These are:

(1) Systematic reorganization of the State's 604 local school districts. It is suggested that needed reorganization occur in two steps; first, by 1968-70, enroll every pupil in a twelve-grade district; second, by 1971-72, enroll every pupil in a twelve-grade district whose high school enrolls no fewer than 215 pupils in the upper four grades. The latter describes a Type I accredited district—as defined in current regulations and standards of the Department of Public Instruction—and represents the minimum size of administrative unit that can be justified in North Dakota.

(2) Systematic production and placement of fully prepared educational personnel in local school districts, so that by 1975 every pupil in the State may be taught by a qualified teacher, and each school may be staffed by fully qualified administrators, counselors, librarians, and related educational service personnel.

Central to the proposed new Foundation Program is the idea that the State—by careful re-utilization of existing funds—can guide the future development of the schools in ways that will guarantee by 1975 an adequate and equal educational opportunity for each pupil. The Program is sufficiently flexible to allow for changes that might occur in the State's economy. It is designed also to enable the State to determine and achieve an optimum use of educational resources in any given year, at whatever level of financial support may be available in that year.

* * * * *

The comprehensive plan for action in North Dakota reflects the cooperative efforts of three principal agencies and institutions. These are:

The North Dakota Department of Public Instruction

The North Dakota Legislative Research Committee

The University of North Dakota

Funds to support the Statewide Study and planning activities were provided by the State Legislature, by the Federal Government—under provisions of Title V, Elementary and Secondary Education Act of 1965—and by the University of North Dakota. Grateful acknowledgement is given to the many State and local school personnel who generously gave of their time and resources to make the study complete.

Kent G. Alm, Director
Statewide Study of Education
September, 1967

A PLAN: GUARANTEEING ADEQUATE AND EQUAL EDUCATIONAL OPPORTUNITY IN NORTH DAKOTA

The Challenge

By tradition and law, North Dakota is committed to the principle of an equal and adequate educational opportunity for its children and youth. The State intends that these guarantees shall be extended to each child, regardless of his place of residence within the State, and without regard to family status or position, physical or mental limitation, color, creed, or national origin.

To guarantee equal and adequate educational opportunity does not mean that each pupil shall receive the same treatment. It means that each pupil is treated precisely in accordance with his own special educational needs and capacities. If he is handicapped in some way, special programs are devised for his benefit, so that he will not be disadvantaged further by that handicap. If he lives in an isolated rural area, special provisions—often incurring higher than normal costs—are made to assure that he will not be penalized because of where he lives. If he is especially gifted, appropriate modifications are made in his instructional program to help him capitalize upon his talents. If he is average in ability and interests, all efforts are made to individualize his instructional program so that he may have full opportunity later to distinguish himself as citizen, parent, earner, and individual. To guarantee these opportunities is the major challenge facing North Dakota today.

Guarantees of this nature cost money. And in North Dakota, money for public services is not as plentiful as might be desired. Quality educational opportunity also requires fully trained teachers; North Dakota now ranks 50th among the states in terms of qualified personnel. It is incumbent upon the State, therefore, to devise the means whereby the fiscal and human resources presently available may be used to the greatest advantage. It is further incumbent upon the State to develop the leadership needed to provide new funds and personnel. To do so, the State now must first re-examine and then reshape the pattern of public support for education and, in particular, the content and method of its foundation program.

Great stress here is given to the Minimum Foundation Program. It is the principal instrument used by the State to guarantee equal and adequate educational opportunity. It marks the lower limit of both the level and the quality of services that will be tolerated; the State will not go below that limit in assuring equal educational opportunity. At the same time, it is the State's positive guide to judicious and effective use of its limited resources. When the foundation program is properly constructed and administered, the people of the State have assurance that their resources are employed to best advantage. In contrast, when the foundation program—as largely it is now—is out of phase with realities in the State, the public education system can become ineffective, inefficient, and inequitable in its treatment of children and youth.

Background

The present system for financing public education in North Dakota is deficient in several critical respects. The details of this condition are discussed in a companion publication ("Public Expenditure for Education in North Dakota") of the Statewide Study of Education. Key points of that analysis are summarized here as background to proposed changes in the pattern of State and local support of public schools.

1. **Level of Support is Inadequate**
   * In 1965-66, North Dakota expended approximately $544 per pupil for public education. Of that total, $427 was spent for instructional and related basic operating costs. Approximately $117 was expended for extraordinary costs of education, including transportation, capital construction, and bonded indebtedness.
   * Approximately 50% of the total amount spent was raised from local district sources (principally property taxes). About 43% was derived from county and State taxes and related funds, and 7% from the Federal Government.
   * At this level of expenditure, the salary average for teachers in North Dakota was about $5,100, nearly $1,500 below the national average in that same year.
   * At these levels of support, only the large and well-organized districts were able to attract and hold qualified teaching personnel. Few districts were able to attract and hold the required numbers of other needed educational service personnel (e.g., librarians, counselors, special education instructors, and supervisors).
2. **Financial System is Substantially Ineffective and Inefficient**
   * North Dakotans make a commendable effort to support public education. They rank about 13th in the Nation in this regard.
   * However, their funds for public education are dissipated, and thereby fail to yield full benefit for boys and girls. This is due to (1) an overly elaborate system of local school district organization and (2) an undue reliance upon underprepared—and therefore partly unqualified—personnel.
   * The State's approximately 144,000 pupils are enrolled in 529† relatively autonomous local school districts; each district largely determines for itself the program of services to be provided each pupil.
   * Districts vary within a very wide range of financial and professional ability to support a quality program.
   * The focal point of concern is the State's 232 small twelve-grade districts. Districts that enroll fewer than 200 pupils in grades 9-12 are excessively expensive to operate. In 1965-66, for example, their average expenditure per pupil was from $24 to $139 higher than that of larger districts.

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† The remainder of the State's 604 districts enroll no students and do not operate schools.

* Moreover, as compared to those in larger districts, students in these small North Dakota districts are less well instructed, perform less well on achievement tests, and receive fewer scholastic program opportunities and services.

3. **Financial Plan is Inequitable**

* The present system tends to give financial reward to small and inefficient school districts even though their relative ability to pay (as measured by taxable valuation per pupil) exceeds that of the largest districts of the State.

* The financial system also tends to reward those districts that rely largely upon underprepared and part-time teaching personnel; this results because State aid payments are based principally upon the number of pupils, not with reference to the quality of programs.

* Furthermore, it may be observed that present arrangements require local school districts to carry an inequitable burden for certain extraordinary costs of education (e.g., transportation services and capital construction); yet they are free to neglect vital aspects of early childhood education (e.g., kindergarten).

Needed: New Pattern of Public Expenditure

Public support for public education in North Dakota should have two principal aims. These are:

* Educational programs that assure each child an equal and adequate education opportunity, and

* A pattern of expenditure that not only is effective and efficient, but also is equitable to all classes of taxpayers.

Specifically, North Dakota should develop and install a new pattern of school financing that would:

* Provide—through a succession of small and achievable advances—the new levels of support that are needed for each well-organized district to employ and retain qualified personnel and to offer programs that are sufficiently broad and varied to accommodate individual differences among its pupils;

* Relate expenditure to a minimum foundation program of educational services that makes an adequate and equal educational opportunity feasible and possible for each school child;

* Spread the burden of the extraordinary costs of special educational services (e.g., transportation, capital construction, and aid to isolated rural children) among all the State's taxpayers, thereby eliminating or reducing inequities in the present system;

* Reward local districts that employ and retain qualified personnel, and—at the same time—not reward those that choose not to do so;

* Promote and facilitate orderly reorganization of administrative units (local school districts) within the State, thereby obtaining optimum use of limited resources through economical operations.

In the pages that follow, attention is given to a possible new plan of public expenditure in North Dakota. The plan was developed from analyses conducted in the Statewide Study, and after consultation with numerous experts (see list of consultants) in the field of state finance. Because of the complex nature of the problem, the plan is presented as a practical example of (or guide to) what could be achieved in North Dakota, essentially with present levels of funding.

The success of the foundation program depends, however, upon the State's ability (1) to reorganize its local school districts within the near future and (2) to prepare, place, and hold qualified educational personnel at all levels within the system of schools. The retention of present organization would nullify many of the economic gains that the foundation program otherwise could attain; failure to attack the personnel problem at its source would make uniform increases in financial support to schools increasingly unattractive.

The proposed new plan of public expenditure is designed to achieve those specific objectives, cited above, that are deemed crucial to effective education in North Dakota. Moreover, it is designed to accommodate itself to economic changes in the State (specifically, to accommodate any major increases in Federal support for education that may occur within the foreseeable future). The plan also is designed to provide an appropriate partnership between local and State agencies in the direction and control of education. Adoption of this plan would enhance the traditional right of each community, through its local school district, to make program decisions for education; at the same time, it would recognize the right of all the people, through State Government, to set standard minimum levels of service that must be provided to all children. The plan is designed to be flexible and easily administered; most importantly, it may be adjusted as required to meet special or unanticipated circumstances without materially altering its basic integrity and effectiveness.

Foundation Program: What Is It?

The State Foundation Program is the financial instrument whereby the State guarantees each child an opportunity to acquire an appropriate and adequate public education.

The word "State" is employed because the program is truly Statewide; however, the program derives its resources from local, county, and State revenue systems.

The word "Foundation" applies, in the sense that the State Program is the basic building block upon which all State plans for educational development are based. It secures the optimum level of normal, recurring educational services desired for all children enrolled in the schools; it also secures those extraordinary services, required by some or all children, that local districts alone cannot secure effectively or equitably.

The word "Program" is used in the financial plan to indicate those general and specific services that constitute the foundation of the State's attempts to guarantee equal and adequate educational opportunities.

In other words, the State Foundation Program both guarantees an appropriate level of financial support for education, and indicates clearly the purposes for which funds will be used. It also prescribes the conditions under which State funds may be employed in the

program; the foundation program therefore can be a useful and persuasive instrument for educational improvement, as for example: for reorganization, personnel development, or program improvement.

Foundation Program: Basic Principles

A foundation program rests upon certain principles. These give the program its character and basic direction. Twenty-seven states that now operate under foundation programs generally have found these to be valid. They are:

* The State has the constitutional responsibility to guarantee each educable child an adequate and equal educational opportunity.
* The State may not properly avoid this responsibility.
* In order to secure these guarantees, the State should establish those levels and qualities of educational services below which it will not permit its institutions to fall.
* These levels and standards of excellence are established and adjusted periodically on the bases of best evidence and consensus among reasonable people.
* To finance these services, the State should establish a minimum dollar support level—involving combinations of funds from local, county, and State sources—which is guaranteed to each local district that agrees to provide essential services so prescribed.
* Non-local funds should be used to guarantee the minimum support level in each district, precisely in accordance with that district's ability to support public education; hence, to equalize contributions to be made among districts with varied tax abilities.
* The non-local share, however, should be established at a level that will not only maintain past effort but encourage an increase of effort by local districts, so that the total level of public support for education may increase consistently with need.

Special circumstances in North Dakota warrant the inclusion of three additional principles in its plan of public expenditure.

* Full participation in a foundation program should be contingent upon local district willingness and ability to form administratively and economically efficient units; in North Dakota—because of its limited population—a twelve-grade district that enrolls no fewer than 215 students in the upper four grades is deemed to be minimally efficient. (In more populous states, much higher minimums generally are recommended. The Conant report, for example, recommends a minimum local unit of 2,500 students; manifestly, this is not feasible in North Dakota.)
* The amount of non-local funds to be made available to a local district should be based upon the proportion of qualified personnel employed and retained by the district; significantly reduced amounts of non-local funds should be paid to districts which employ underprepared personnel. (To be most effective,

this policy must be supported by a statewide program of personnel development and placement, such as the program described in "A Plan: Developing and Placing Educational Personnel in North Dakota." Otherwise, local districts literally may be unable to find qualified personnel in the numbers required.)

* In setting the requirements and limits for local district participation in the foundation program, there should be sufficient leeway in the levels of total local millage to permit and encourage the districts to begin to introduce new or enriched programs (e.g., kindergarten). Later, as appropriate, such new programs should be made integral parts of the foundation program.

Foundation Program: Characteristics

What properly may be deemed to be the essential ingredients of a foundation program in North Dakota? In the Statewide Study of Education reference to standard practice in other states proved to be instructive, as was reference to personnel standards advocated by accrediting and professional associations. Unique characteristics of the State, however, mitigated against a slavish adaptation by North Dakota of other states' practices. For example, many states have eliminated entirely the one-teacher school. Yet North Dakota cherishes a tradition of rural education that, in the mind of the Statewide Study Team, warranted preservation, albeit in contemporary dress. Consequently, in proposing certain curriculum improvements for elementary education, the Study Team specified appropriate new ways to gain the advantages of the one-teacher school within the modern elementary school organization of the larger district. (See "A Personnel Development Program for North Dakota," request to the U. S. Office of Education, August, 1967.)

The proposed plan of public expenditure provides funds sufficient to enable each well organized district to obtain qualified personnel and services as follows:

Personnel

* One "qualified" or "fully prepared" teacher for an average of 25 pupils; this would permit the local district to vary enrollment ratios as required for best effect, to maintain an economical average cost, and to individualize instruction for all pupils. Elementary school ratios might be 1:27; in high schools, 1:22. A "qualified teacher" is defined as one who has completed a four year college program in the area of assigned teaching duties; a "fully prepared teacher" should have completed the equivalent of a master's degree program in an appropriate field.†

* One "qualified" or "fully prepared" administrator for each 12 full-time equivalent teachers; this would guarantee that each well-organized district would be able to employ and retain the central office and school administrative personnel required

† Factors other than training are important in the selection and employment of teaching and related educational personnel. These include: type and value of experience, personality, demonstrable skill, interest and professional commitment. Local boards of education must consider these. The State must assure, however, that these local choices are made from among candidates who are prepared, at least, in appropriate four, five, or six year training programs.

for effective management. At the same time, it would permit each local district to distribute its administrative units in the manner most advantageous to its own program requirements. A "qualified administrator" is defined to be one who has been prepared in an appropriate program at the master's degree level; a "fully prepared administrator" will have completed the equivalent of a 6th year or doctoral program in his field.

* One "qualified" or "fully prepared" curriculum or instructional supervisor for each 24 teachers; this would guarantee to each well-organized district the level of instructional leadership required to engage systematically in program improvement. A "qualified supervisor" will have completed at least the master's degree in an appropriate field; a "fully prepared supervisor" will have completed an advanced graduate program in an appropriate field.

* One counselor for each 300 high school pupils (grades 9-12); this would guarantee a minimally acceptable program of testing, vocational and academic guidance, and counseling services. Local districts may choose to introduce counseling programs into their elementary schools as well; later, consideration should be given to broadening the scope of the foundation program to include elementary counseling. A "qualified counselor" will have completed at least a master's degree program in the field; a "fully prepared counselor" will have completed an appropriate advanced graduate degree program.

* One librarian for each 500 pupils; although less than recommended by professional associations, this level of support would assure professional attention to the development and maintenance of a temporarily acceptable library program in each well organized district, although many local districts may wish to go beyond this minimum. A "qualified" librarian is one who has completed at least a four-year college program with a major in library science; a "fully prepared" librarian will have completed at least a master's degree program in the field.

* One qualified para-professional for each six teachers; this will permit the well organized district to employ secretaries and teacher aides, as required, to assist the professional staff of teachers, administrative personnel and specialists.

Services

* Instructional materials, library materials, audio-visual materials, and software for computer-assisted instruction (whenever introduced); support for these should be equivalent to $25 per pupil per year. This compares to a range of support in 1965-66 of $21 to $24 per pupil, depending upon the district. As demonstrated in the financial part of the Statewide Study, present levels of support for instructional materials and services are too low; moreover, most school libraries are not adequately supplied. Hence, the slight increase over present expenditure would seem to be minimal for the future.

* Health, recreation, and community services should be supported at a level equivalent to $5 per pupil per year. This assures each well-organized district that it can retain at least the part-time services of a nurse or dental attendant; also, it can

provide the modest sums necessary to develop the school as a community as well as an academic center. The latter would seem to be particularly important in order to maintain close working relationships between parents, patrons and school personnel as districts undertake administrative reorganization.

* Teacher in-service training, equivalent to $5 per pupil per year, or $125 per teacher per year. Rapid changes in knowledge and in technology make necessary the continuing on-the-job training of teachers. This is acutely important in North Dakota, where 60% of present elementary teachers lack even a four-year college degree, and 85% of secondary teachers lack master's degree preparation in their fields.

* Special education services supported financially at one-and-one-half the level provided for children without marked handicaps. This enables each well-organized district—individually, or collectively through regional clusters of districts—to provide the high cost services needed to equalize educational opportunities for children and youth with physical, mental, emotional, or social handicaps. It is estimated that 7½% of the children and youth in the United States are disabled by such handicaps to an extent sufficient to warrant special educational services. In North Dakota, no survey of need has been completed. For present purposes of the foundation program, an estimate of 5% is here employed; special Federal funding generally is available to assist in this area, as needed.

Administration and Development

* Research, planning, and evaluation services, equivalent to 1% of operational expenditure each year. This enables the well-organized district to undertake seriously the task of planning its continued development, and to assess the effectiveness and efficiency of its instructional and management programs. If the State is to advance its education system, from its present low status to a role of useful service to its children and youth, it is literally true that each local district—as does agriculture, business, and industry—must invest substantially in programs of research and planning for improvement.

* Plant maintenance and operation services, equivalent to 12% of operational expenditure each year. This level of support will enable the local district both to meet the annual recurring costs required to operate its school facilities, and to establish and support a continuing maintenance program for its buildings and facilities. In recent years—in an endeavor to place as many dollars as possible into teacher salaries—school districts have tended to sacrifice their plant maintenance programs. Although understandable, this practice does not represent either good policy or good economics. Present average expenditure for plant maintenance and operation is above $55 per pupil; the proposed foundation level of support is the equivalent of about $60 per pupil.

* Fixed charges, including provisions for teacher retirement and/or social security, equivalent to 8% of personnel salaries. This level of support enables the well-organized local district to share in a basic fringe benefit program for school personnel;

however, over the long-term future, additional allocations under the State foundation program will have to be considered.

* Capital expenditures for minor, recurring items (exclusive of bonded indebtedness for construction) equivalent to 4% of annual operational costs. This level of support enables the well-organized district to replace equipment, to make new purchases as required, and to pay interest on short-term debts incurred for equipment purchases or minor construction. Provisions outside the basic foundation program are proposed, to support long-term bonded indebtedness for school construction.

Foundation Program: How It Would Work

The basic foundation program is designed to guarantee each well-organized local district the level of funding needed to provide the equal and adequate educational opportunity desired for each of its pupils. The State—discharging its Constitutional obligation to guarantee an adequate program for each child—engages as an active partner with local districts in providing needed funds. These steps are needed: first, reach essential agreement on the ingredients of the foundation program (using the Statewide Study materials herein presented as a guide); second, "price out" the programs to be supported, and adjust them in accordance with revenues that are available now or can be made available from local, county, State, and Federal sources in the future.

Pricing the Foundation Program

The major costs of any educational program involve personnel salaries; hence, it is essential to estimate the average salary level to be supported by the foundation program for each classification of salaried positions. This does not necessarily mean that the State should enact a minimum or uniform salary law for teachers or other school personnel. It does mean that the foundation program should provide sufficient funds to enable each well-organized local district to employ and retain fully qualified teachers and related school personnel, since these are the key to quality education.

After careful scrutiny of national and regional salary practices, and with due consideration to salary positions in competitive fields, the Statewide Study Team determined that the following schedule of average salaries might be appropriate for the foundation program in North Dakota. Note that these are average salary figures; in any individual district, the salary range actually paid would be adjusted according to that district's own salary schedule.

Average Annual Salary by Classification

Qualified Teachers:	$ 6,600
Qualified Administrators:	10,000
Qualified Supervisors:	7,500
Qualified Counselors:	6,600
Qualified Librarians:	6,600
Qualified Secretaries:	2,500

The average salary figure used for qualified teachers is the average salary reported for all teachers in the United States in 1966. This average undoubtedly will increase substantially in the next five years, due partly to increases in the cost of living and partly to the increased effectiveness of teachers in collective negotiations.

The average salary figure employed for administrators may well prove to be too low, particularly as the State implements its needed program of district reorganization. School administrators in the State's most efficiently organized districts now earn considerably in excess of this average figure, in recognition of their superior training and broad responsibilities. An increase in their salary average may be required, corresponding to increases in the size of the State's average district. Similar adjustments in salary positions for supervisors, counselors, and librarians also may be warranted; this will most certainly be the case as increases are achieved in the level of initial and subsequent graduate training of these personnel.

Determining a Unit Cost Figure: Basic Program

Given agreement with respect to program ingredients and average salary levels to be supported, it then is possible both to determine a unit cost per pupil and to use that unit cost in setting the level of expenditure to be assumed in the foundation program.

The Statewide Study Team used data from the 1965-66 school year in arriving at this unit cost. The calculations themselves are not interesting; they are reproduced here, however, to make explicit the method employed. The ratios of personnel to students (reported in the earlier section of this document) are employed here.

A. **Enrollment:** September 30, 1965

1.	Elementary (1-8)	100,305
2.	Secondary (9-12)	44,466
3.	Total (1-12)	144,771
4.	Kindergarten	2,804

B. **Personnel Requirements** (Expressed as full-time equivalents)

1. Teachers
   a. Elementary (1-8) at ratio of 27:1 = 3,715
   b. Secondary (9-12) at ratio of 22:1 = 2,021
   c. Total (1-12) at ratio of 25:1 = 5,791†
2. Instructional Service Personnel
   a. Librarians at ratio of 500:1 = 290
   b. Counselors at ratio of 300 (9-12): 1 = 148
   c. Special education instructors at ratio of 5% of 144,771/25 = 289
   d. Curriculum and instructional supervisors at ratio of one per 24 teachers = 5791/24 = 241
3. Administrative Service Personnel
   a. Administrators at ratio of one per 12 teachers = 5791/12 = 484
   b. Secretaries (and para-professionals) at ratio of one per six teachers = 5791/6 = 965.

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† Note that these are numbers of personnel units, not actual numbers of persons actually to be employed. Local districts—by continued use of part-time employees, for example—may employ 7,000 persons with funds provided for the 5,791 units.

C. Allocations for Supporting Services

1. Instructional materials, supplies, and services:	$25/pupil
2. Health, recreation, and community services:	$ 5/pupil
3. Teacher in-service training:	$ 5/pupil
4. Administration and Development	
a. Fringe benefits:	8% of salaries
b. Research, planning, and evaluation:	1% of expenditure
c. Plant maintenance and operation:	12% of expenditure
d. Indirect costs (capital outlay and debt service, exclusive of bonded indebtedness)	4% of expenditure

A unit cost of $502 per student is estimated as the amount needed to provide these minimum levels of basic services (exclusive of transportation, bonded indebtedness, and capital construction), even assuming that all teachers are qualified and all local districts are accredited as Type I, 12-grade districts. In other words: if the State could—today—qualify its school personnel and reorganize its local districts into 12-grade administrative units enrolling not fewer than 215 pupils in grades 9-12, to support the proposed foundation program of services would cost approximately $502 per pupil.†

Again referring to the 1965-66 enrollment data, the hypothetical basic unit cost was derived as follows:

1. Personnel			
a. Classroom teachers:	5791 × $ 6,600	$38,220,600	
b. Special Education teachers:	289 × $ 3,300	953,700††	
c. Administrators:	484 × $10,000	4,840,000	
d. Librarians:	290 × $ 6,600	1,914,000	
e. Counselors:	148 × $ 6,600	976,800	
f. Supervisors:	241 × $ 7,500	1,807,500	
g. Secretaries:	965 × $ 2,500	2,412,500	
h. Fringe Benefits:	8% of salaries	4,090,040	
Subtotal			$55,215,140
2. Services			
a. Instructional Materials:	$25/pupil	3,619,375	
b. Health, recreation, and community programs:	$5/pupil	723,855	
c. Teacher in-service training:	$5/pupil	723,855	
Subtotal			$ 5,066,985

† Per pupil unit costs are calculated here on basis of September enrollment. Other measures would produce different unit cost figures. For example: pupil in average daily attendance (ADA) or pupil in average daily membership (ADM). For detailed discussion of these measures, see "Public Expenditure for Education in North Dakota," a product of the Statewide Study of Education.

†† (Special education is allocated an additional one-half unit at $3,300.)

3. Administration and Development

a. Research, planning, and evaluation: 1% of current expenditure	726,291	
b. Plant maintenance and operation: 12% of current expenditure	8,715,488	
c. Indirect costs (exclusive of bonded indebtedness and capital construction): 4% of current expenditure	2,905,163	
Subtotal		$12,346,941
TOTAL CURRENT EXPENDITURE:		$72,629,066

The total enrollment in grades 1-12 on September 30, 1965, was reported to be 144,771. The estimated cost per pupil for basic services under the proposed program was calculated to be $72,629,066/144,711 or $501.69 per pupil.

The total amount per pupil may be expressed in terms of the five following categories of current expenditure:

Expenditure Category			
I. Administrative Services			
a. Administrative salaries	$ 4,840,000		
b. Secretarial salaries	2,412,500		
c. Research, planning, evaluation	726,291		
	7,978,791	=	$ 55.11
	144,771		
II. Instructional Services			
a. Teachers salaries	38,220,600		
b. Supervisors salaries	1,807,500		
c. Librarians	1,914,000		
d. Counselors	976,800		
e. Special education	953,700		
f. Instructional materials, etc.	3,619,275		
g. Health, etc.	723,855		
h. Teacher in-service	723,855		
	48,939,585	=	338.06
	144,771		
III. Plant Maintenance and Operation	8,715,488	=	60.20
	144,771		
IV. Fixed charges (fringe benefits)	4,090,040	=	28.25
	144,771		
V. Indirect costs	2,905,163	=	20.07
	144,771		
			$501.69

Determining Unit Costs: Extraordinary Services

The basic portion of the foundation program should be financed by each local district, with the help of such non-local funds as may be appropriate; the proportion of non-local funds would vary among districts, as indicated earlier.

As a matter of principle, however, it is advocated that all the people of the State—through State Government—should support those extraordinary services, not included in the basic program, that are necessary to provide equalized educational opportunity. The extraordinary services include: transportation services, capital construction and interest on bonded indebtedness, and special programs attendant to serving the needs of extremely isolated rural children.

However, the direct costs of extraordinary service programs should be shifted to the shoulders of State Government only when local districts have reorganized themselves into minimally efficient units, namely: Type I accredited 12-grade districts. When this has occurred statewide, the full use of State funds for these purposes then would be warranted.

A. Transportation Services

In 1965-66, it is estimated that nearly 60,000 children were transported to and from school at a cost of $6,280,000 or about $106 per child transported.

If it is viewed as a part of the total expense required to educate all children in the State, the transportation item of $6,280,000 amounts to $43.38 per pupil. (This is in addition, of course, to the basic $501.69 per pupil.) The $43.38 figure is used hereafter as the measure of unit cost per pupil for transportation services to be included in the foundation program.

In the proposed foundation program, State Government would provide the funds to get children to and from school, while local and State funds share support for the instructional program. In administering the transportation portion of the foundation program's extraordinary costs, it is assumed that the State Department of Public Instruction will establish appropriate guidelines and regulations whereby local districts—once well organized—will prepare and submit district-wide plans for review and approval by the Department. When a district's transportation plan is approved, the State would pay approximately $106 per transported pupil (or such other amount as may be determined in the future) to the local district.

B. Capital Construction and Debt Service

In 1965-66, an estimated $7,256,933 was expended for payments on capital loans and bonded indebtedness for school construction. These debt service payments of principal and interest were made exclusively from local district funds.† Because a central record of outstanding bonded indebtedness is not maintained by the State, it is not yet known when all present debt is scheduled to be retired by local districts. The matter was reviewed by means of a survey of county auditors, and it was ascertained that present

† This includes Repayment to Building Fund (1300), Redemption of Bonds (1561) and Interest on Bonds (1562).

indebtedness is spread fairly evenly throughout the State; approximately equal amounts have been incurred by large, medium, and small districts.

The Statewide Study recommended, as a matter of principle, that State Government absorb the costs of capital construction, once local districts reorganized themselves as 12-grade, Type I accredited administrative units. Indeed, the willingness of State Government to absorb these costs could accelerate the desired reorganization, both by providing an incentive to reorganize and by removing a significant obstacle to proposed reorganizations.

Two major elements of funding are involved. First, provisions should be made to absorb outstanding debt for school construction, thereby to eliminate major barriers to reorganization. The initial year's cost to the State would not exceed $7,256,933 (the present aggregate debt service incurred by local districts); subsequent costs would decline annually until all obligations were retired.

Second, provisions should be made to assure support for essential new construction. Reorganization necessarily will lead to some readjustments in attendance units, particularly at the high school level; in certain instances, for example, present high school facilities may have to be converted to elementary or junior high school use, and new high schools will be needed. Moreover, some present structures are obsolete and will need to be replaced.

Annual provision of a prudent sum, equivalent to $20 per pupil, is suggested for such construction. The amount required would be approximately $2,900,000 on the basis of 1965-66 enrollment.

The $20 per pupil would be equivalent to $15,000 per classroom unit ($20 x 25 pupils x 30 years), or about one-half the normal cost of new construction at 1967 prices. At an average annual interest rate of 5%, an annual appropriation of approximately $2,800,000 could be used to repay principal and interest on an aggregate building program of approximately $50,000,000; the sum would be sufficient to replace approximately one-fourth of present facilities, to extend present plant capacity by one-fourth, or to finance such other construction plan as may be drawn. (The Study Team has not drawn a construction plan; the observation that present plant capacity could be replaced or extended by one-fourth is intended only to illustrate what could be achieved with the recommended financial provision.)

The cost to support the capital construction aspect of the proposed foundation program would be the sum of the two items, as follows:

* $20.00 annually per pupil for new construction as required ($2,895,420 based on 1965-66 enrollment, but projected at approximately $2,800,000 per year).
* An amount not to exceed $7,256,933 annually to retire present indebtedness; this is roughly equivalent to $50.13 per pupil enrolled in 1965-66.

To administer construction aspects of the foundation program's extraordinary costs, the Study Team assumes that the State Department of Public Instruction would develop a bond and building

office to review and approve locally initiated building and bonding programs. State funds could then be released in support of local bond issues as long as such issues receive favorable treatment in the bond market. Other alternative means of providing the proposed State support could be explored, as required, when local bond issues fail to receive favorable rates of interest in the market.

Unit Costs: All Services Combined

If all school personnel were fully qualified and each district within the State optimally organized, the cost of the proposed foundation program would total $615 per pupil. This represents an increase of $72 per pupil over the 1965-66 per pupil expenditure for comparable items of expenditure. Of the total estimated per pupil unit cost, the basic shared program is $501.69; transportation services add an average per pupil cost of $43.38; interest and repayment of outstanding construction-related indebtedness adds $50.13; and a recommended annual appropriation for future construction adds $20.00 per pupil. Together, the four items bring the total to $615.20. This unit cost figure, multiplied by the enrollment projected for each future year, yields an estimate of the total of financial support required for the future.

Adjusting the Cost Unit

The level of support per pupil may be adjusted to meet various contingencies. Specific aspects of the foundation program may be increased or decreased, as revenues or experience dictate.

The program base of the proposed plan of expenditure has this great merit: it permits one to determine precisely where expenditures may most effectively be changed. It encourages the settings of priorities among program items when revenues are scarce. It helps to pinpoint areas for needed improvement.

For the long-term future, of course, changes should be made in the basic unit allotment. The Statewide Study Team identified several likely possibilities. These are:

* Increases in public contribution to teacher retirement and social security. For the period 1967-1975, the estimate of 8% of salaries may be workable; certainly after that period, if not before, substantial increases will be required, to a level of perhaps 12½%.

* Average salaries will need to be increased, particularly as teachers and other professional personnel upgrade their present levels of qualification. Even if the estimated average salary of $6,600 for teachers should prove adequate during the period 1967-1975, it most certainly will need to be increased significantly after that period. Average administrator salaries in the program most certainly will need to be increased substantially during the next few years; lesser adjustments will be required for counselors, supervisors, librarians, and teachers of special education.

* The foundation program may be expanded to include public kindergartens. An estimated 12,500 pupils now could profit from kindergarten experience, particularly in the rural areas. Since kindergarten programs typically are half-day programs,

the additional cost to the foundation program would be $3.5 to $3.85 millions.

* Modern educational technology may be expected to change in the decade ahead; many present instructional practices and aids will be made obsolete. A modest allocation—$25 per child—for instructional materials and aids is built into the proposed program; it will need to be increased during the coming decade. Each additional $25 expenditure per child will add approximately $3.6 millions to the total program.

* As the State reorganizes itself into minimally efficient 12-grade districts, existing transportation routes and some school facilities will be affected. These factors will require intensive and careful study over the next two years. (It is recommended in the "Plan of Educational Development for North Dakota: 1967-1975," a product of the Statewide Study of Education, that the Department of Public Instruction cause its proposed seven regional service centers to take appropriate leadership in this matter.)

The study of these matters should identify precisely the adjustments that may be required for transportation and capital construction. The sample foundation program anticipates that such adjustments may need to be made. For example: the cost estimate may prove to be higher than necessary for retiring existing bonded indebtedness and for underwriting needed future construction (the equivalent of $70.13 per pupil). If these requirements decline during the next few years, but the cost of transportation services were to be increased as an outcome of major reorganization, allocations can be modified accordingly.

Implementing the Foundation Program

Three major factors must be considered, as the State endeavors to move from its present (1967) financial plan to the proposed new foundation program. These are:

* District reorganization is a first prerequisite to any major shift in the pattern of public expenditure for education; the proposed foundation program contains—in its provisions for extraordinary services—potentially powerful incentives for districts to reorganize appropriately.

* Employment and retention of qualified school personnel (specifically elementary teachers and attendant special service personnel) is a second prerequisite to a shift in the pattern of public expenditure; if the level of State support for education is keyed precisely to the number of qualified personnel the local district employs in each year, the foundation program will contain powerful incentives to improve the overall personnel condition.

* Annual unit costs, as developed in preceding pages, are based on salary scales appropriate for "qualified" and "fully qualified" personnel; to a great extent, present personnel of local school districts do not fit in these categories. Therefore, actual costs will not reach the estimated totals; indeed, the cost of the foundation program should be decreased in direct propor-

tion to the number of non-qualified personnel in the State's system of schools.

The Classroom Unit

As a matter of convenience in discussing the foundation program and its implementation, a new term is introduced at this point. The term is the "classroom unit."

The Study Team defined the "classroom unit" as follows:

> The classroom unit is the classroom teacher plus all services that are provided in support of the teacher.
>
> "Basic services" include: instructional materials; equipment, supplies and furnishings; services of administrators, supervisors, counselors, librarians, custodians, secretaries, and other personnel, etc.
>
> "Extraordinary services" include: transportation of pupils; capital construction; and debt service.

A cost estimate can be assigned to the classroom unit, utilizing the unit costs per pupil that have been developed. The "basic unit cost" per pupil is $501.69; the additional provision for "extraordinary services" raises this cost, where applicable. The unit costs were calculated on the basis of the ratio of one qualified teacher to twenty-five students.

Therefore: for basic services, the cost per classroom unit is 25 × $501.69 or $12,542.25. This figure includes provision for the salary of a qualified teacher; for a classroom unit manned by an under-qualified, non-degree teacher, therefore, a significantly lower cost is expected. Full provision for "extraordinary services," on the other hand, would increase the total.

The majority of elementary school teachers in the State are not qualified. Moreover, their average salary is far less than the $6,600 that is the average proposed under a new foundation program. In 1965-66, in fact, the average salary paid was approximately $4,500. Thus the actual average was, roughly, only two-thirds of the proposed average salary for qualified teachers. Furthermore, as reported in "Public Expenditure for Education in North Dakota," this added fact is clear: districts which rely principally or heavily on non-degree teachers tend not to provide the full range of supporting services which are envisioned in the proposed foundation program.

Where these two factors exist—non-degree teachers and incomplete programs—the full level of financial support is neither needed nor justifiable. During the near future, regrettably, both factors will continue to exist in portions of the State.

Consequently—during the near future—the State should recognize two quite different categories of classroom units:

1. Classroom units with qualified teachers, and
2. Classroom units with non-degree teachers.

In the proposed foundation program, the level of support for "non-degree teacher classroom units" could be set at one-third below the full level recommended for "qualified teacher classroom units." This distinction could be drawn without materially altering present conditions, and without detriment to the quality of education in the State.

This suggests that two separate levels of support be used in implementing the foundation program:

1. $12,542.50 per qualified teacher classroom unit;
2. $8,551.50 per non-degree teacher classroom unit.

When the lower level of support is provided to districts that employ non-degree teachers, care must be exercised, of course, to see that pupils are not thereby penalized, and to see that no local district is encouraged to continue indefinitely to offer a sub-standard program. When the two proposed figures for unit cost are tested against the 1965-66 school data, it is clear that pupils would not be penalized.

Some children are being penalized now: they are the children who attend school in districts that are not organized reasonably and/or employ unqualified non-degree instructors; such districts provide inadequate educational opportunities. These children will not be penalized any further by the recommended method of State support; their districts simply will not be supplied additional funds to be spent unsuitably on high-cost, ineffective programs.

The principle involved is this: State funds in support of the foundation program should be used to reward only those local districts that are well organized, and that employ qualified instructional personnel.

Applying the Classroom Units

The level of support for a classroom unit would be either $12,542 or $8,551. When expressed as cost per student (25 students per unit), the qualified teacher classroom unit, of course, costs $501.69 per student; the non-degree teacher unit costs only $342.04 per unit.

The Study Team applied these two sets of costs to the actual data for 1965-66: the higher figure was used for all qualified teachers and their classroom units, and the lower figure for other units. The average cost for all classroom units, computed on this basis, would have been $10,600 or approximately $428 per pupil. The actual cost per pupil in 1965-66 was $426.62. This justifies the conclusion that—if the State would adopt the principle of high support for qualified teacher units, low support for others—adoption of the recommended foundation program would not necessarily require a substantial increase in State expenditures.

The principle of differential levels of support for qualified and non-qualified classroom units is not new. It has been applied, for example, in West Virginia. However, it should be noted that, in its use of the support differential, the objective sought in the foundation program is not solely to invest the higher level of funds where the greatest educational value is received. A more important outcome is at stake: to assist and encourage each local district to employ and retain fully qualified personnel at the earliest possible moment. Failure to find ways to achieve that outcome will perpetuate the present ineffective, inefficient, and inequitable condition that now characterizes a large part of the State's educational system.

In other words, the main task that is incumbent upon the State is to take appropriate leadership to correct the personnel condition in the schools; it is not simply to alter the pattern of public expenditure to adapt to the present, unsuitable condition. For this reason, the State must consider and implement immediately a comprehensive

plan to prepare and deploy needed new personnel. By 1975 at the latest, every child in the public schools should have the benefit of a qualified teacher, and every qualified teacher should enjoy the services of related professional service personnel.

Developing and Placing Educational Personnel

The State Study Team gave intensive study to the personnel situation in the State's system of public schools. The study revealed the generally unsatisfactory condition that is reported in "Educational Development for North Dakota, 1967-1975," a product of the Statewide Study of Education.

> "North Dakota public schools are overstaffed with underprepared professional personnel. Because of inefficient local district organization, nearly 7,000 teachers are employed to do the work of 6,000. Moreover, 59% of elementary teachers have less than a college degree. This means that 22,000 children in the elementary schools could pass through eight grades of formal instruction without coming into contact with a degree teacher. The State also lacks a minimum number of qualified special service personnel, including: librarians, counselors, curriculum and instructional supervisors, special education instructors, and school administrators."

The Study Team advanced a proposed plan for treating the personnel condition systematically through the State's universities and State College system. The plan is described in detail in the document mentioned. The University of North Dakota already has taken initial steps to implement the pilot project for the personnel development plan. A request for funds was made by the University, in concert with the Board of Higher Education and the Department of Public Instruction, and with the cognizance of the Legislative Research Committee, to the U. S. Office of Education. A grant—to provide financial support for the program—has been approved by the U. S. Commissioner of Education.

The central purpose of the proposed personnel development plan is to prepare fully qualified personnel; the target is to place a "qualified" or "fully prepared" teacher in every classroom in the State's elementary schools by 1975. The University of North Dakota will endeavor to prepare approximately 800 graduates at the master's degree level; it is anticipated that the State colleges will replicate the pilot program—beginning in 1970—in order to produce and place an additional 1,150 graduates by 1975.

This special action program provides the State with an exceptional opportunity: it can implement the desired new foundation program at precisely the rate at which new personnel can be introduced into the State's public schools. That is, the differential support rates could be applied when needed reorganization is largely completed: i.e., in 1970 or, at the latest, 1972. Districts that then employed qualified personnel would begin immediately to benefit from the improved foundation program. Districts that employ un- or underqualified personnel would receive the lower level of support. Districts that employ qualified teachers—from the new personnel development program or elsewhere—would be guaranteed a chance to the higher level of foundation program support just as swiftly as each classroom unit is manned by a qualified teacher.

The foundation program as proposed, therefore, can supply a powerful incentive to improve the quality of school personnel, because it can assure the new levels of support needed to attract and hold such personnel. During a period of transition, as new personnel are being developed and introduced into the schools, the total cost of the foundation support will change gradually: each year, the higher level will partly supplant the lower level of support. Thus the State could afford to move from present low levels of school support to needed new levels in gradual, achievable steps.

Pattern of Personnel Increases: 1966-1975

In 1965-66, an estimated 53.7% of the 5,791 classroom units in the State's elementary and secondary schools were filled by qualified teachers.†

The proposed personnel development and deployment plan is designed to produce and place a qualified teacher in every classroom in the State by 1975. Hence, the percent of classroom units to be staffed by qualified teachers in 1975 is estimated to be 100%.

In Table I, column 12, the percent of qualified teachers in relation to needed classroom units is seen to increase each year beginning in 1967. The increase in qualified personnel is precisely coordinated with the successful output anticipated by the plan for development and placement of personnel. If the State's colleges and universities are unable to produce and place graduates as planned, and if qualified personnel cannot be obtained elsewhere in the numbers needed, the projections reproduced in column 12 necessarily would change. The success of the plan also depends upon the accuracy of elementary school enrollment projections, as reproduced in column 1, Table I.

TEACHER QUALIFICATION SCHEDULE

	Elem Enr.	Basic PTR	# Qual. Positions Needed	Isolation	Total # Positions 1-8	Non-degree	New Program Output	Replacement Schedule	Qual. 1-8 Tchrs.	% Qual. 1-8	Total Tchrs Positions 1-12 Needed	% Qual. Posit. 1-12
1966	100,305	23	4,361		4,361	2,684		2,684	1,667	38.2	5,791*	53.7
1967	100,518	23	4,370		4,370	2,589		2,589	1,781	40.7	5,818*	55.5
1968	99,520	23	4,327		4,327	2,546	100	2,446	1,881	43.5	5,799*	57.8
1969	97,780	23	4,251	33	4,284	2,403	100	2,303	1,981	46.2	5,717	59.7
1970	97,671	24	4,070	33	4,103	2,122	100	2,022	2,081	50.7	5,703	64.5
1971	97,517	24	4,063	33	4,096	2,015	300	1,715	2,381	55.7	5,685	69.8
1972	97,328	25	3,897	33	3,930	1,549	300	1,249	2,681	68.2	5,669	78.0
1973	96,394	25	3,856	33	3,889	1,208	325	883	3,006	77.3	5,621	84.3
1974	95,425	26	3,670	33	3,703	697	375	322	3,381	91.3	5,572	94.3
1975	95,987	26	3,692	33	3,725	344	350		3,725	100.0	5,586	100.0
1980	102,238	27	3,787	33	3,820				3,787	100.0	5,723	100.0

*NOTE: 7,485 persons were employed in 1966 to perform the work required of 5,791. Reorganization of districts into more efficient units will materially reduce the number of qualified teachers needed in the State. However, the local district may continue to employ whatever number of personnel it desires. The State, however, will support only in percent of qualified personnel.

† To avoid confusion, a classroom unit is equivalent to one teacher for each 25 pupils enrolled. The enrollment in 1965-66 was reported to be 144,771. Dividing by 25, the number of classroom units is calculated to be 5,791. In point of fact, however, 7,485 different persons were employed in 1965-66 to perform the work equivalent of 5,791 full-time qualified teachers.

If a shortage should continue to exist in the ranks of qualified elementary school personnel, it may be offset by the fact that the State has a small surplus of degree-bearing secondary teachers (although not all teachers are placed precisely in accordance with need); some high school teachers may wish to qualify themselves for service in junior high school or upper elementary grades, thereby helping to alleviate the deficiency of qualified elementary teachers. It is expected, however, that high school teachers will be the principal candidates for preparation as the 1,250 fully qualified librarians, supervisors, and administrators that will be required to staff the schools by 1975.

The Differential Rates Applied

The new foundation program could be implemented in 1969, for example. Using the principles and techniques herein described, it is possible to project the approximate cost of the program in its first and subsequent years. Projections are shown in Table II for the period 1969-1980. The assumptions underlying these projections determine their validity. If the assumptions were changed, the resulting total costs and unit costs necessarily would be changed also. The assumptions employed here are these:

* Local school district reorganization into 12-grade, Type I accredited units has been accomplished (as in the example, in 1969.)
* It is assumed that the basic per pupil cost for all services specified earlier in the document is $615.20. This includes:
  + the basic ingredients of the foundation program
  + the extraordinary services, including: transportation; service on bonded indebtedness; an allocation for anticipated future construction.
* It is assumed that a rate differential is applied in determining the dollar amount of support per classroom unit; the differential applies only to the allowance for basic services. Application of each rate is in direct proportion to the local school district's success in employing qualified personnel:
  + the rate of $12,542 per classroom unit applies to the classroom units manned by qualified teachers;
  + the lower rate of $8,551 per classroom unit applies to all other units.
* It is assumed that the unit cost of transportation will remain constant during the period. In fact, these costs may increase, incident to reorganization; the extent of increase, however, cannot be estimated until detailed studies are made. To facilitate comparison with other unit costs, transportation is discussed in terms of dollars per enrolled pupil rather than dollars per pupil actually transported; in determining a district's transportation allowance, of course, cost per pupil transported is the critical figure. The two values are: $106 per pupil transported; $43.38 per pupil enrolled.
* It is assumed that service costs for present bonded indebtedness will remain constant during the period. In point of fact, they are likely to decline; however, it is not possible, with available data, to determine this precisely.

* It is assumed that the personnel preparation and deployment plan will be implemented, beginning Fall, 1968, and will produce and place graduates on the schedule indicated in Table I. This requires that the Federal Government will provide funds as requested for the pilot program to be conducted at the University of North Dakota, and that the State Legislature will provide modest additional funds to the Uuniversity and State Colleges to replicate the pilot program after 1969.

PROJECTED COST OF FDN PROGRAM

1969-1980

	1969	1970	1971	1972	1973	1974	1975	1980
Enrollment (1-12)	142,931	142,573	142,117	141,729	140,520	139,297	139,660	143,070
Basic Cost at 501.69/pupil	71,707,053	71,527,448	71,298,678	71,104,022	70,497,479	69,883,912	70,066,025	71,776,789
% Degree Personnel	59.7	64.5	69.8	78.0	84.3	94.3	100.00	100.00
Cost Adjusted to Qual. Personnel								
# Positions	5,717	5,703	5,685	5,669	5,621	5,572	5,586	5,723
# Qual.	3,414	3,681	3,970	4,420	4,738	5,250	5,586	5,723
# Non-qual.	2,303	2,022	1,415	1,249	883	322		
Qual. x 12,542.25	42,819,241	46,168,022	49,792,732	55,436,745	59,425,180	65,846,812	70,066,025	71,776,789
Non-qual. x 8,551.50	19,694,104	17,291,133	14,665,822	10,680,823	7,550,974	2,753,583		
TOTAL BASIC	62,513,345	63,459,155	64,458,554	66,117,568	66,976,154	68,600,395	70,066,025	71,776,789
Ave/basic pupil cost	437.37	445.10	453.56	466.51	476.63	492.48	501.69	501.69
Transp. $43.38	6,200,347	6,185,435	6,165,035	6,148,204	6,905,758	6,042,704	6,058,451	6,206,377
1561 - 1562 - 1300 Capital Constr. + Debt Service	7,256,933	7,250,000	7,250,000	7,250,000	7,250,000	7,250,000	7,250,000	7,250,000
Future Constr. $20/Pupil	2,858,620	2,851,460	2,842,340	2,834,580	2,810,400	2,785,940	2,793,200	2,861,400
Total C.C.&D.S.	10,115,553	10,101,460	10,092,340	10,084,580	10,060,400	10,035,940	10,043,200	10,111,400
GRAND TOTAL	78,829,245	79,746,050	80,715,929	82,350,352	83,132,312	84,679,039	86,167,676	88,094,566
Ave./pupil cost	551.52	559.33	567.95	581.04	591.60	607.90	616.98	615.74
SEA SERVICE CENTERS								
A. Sparcity Allowance (10% H.S. Pop.) \ PPC	(4.515) 1,245,056	(4.490) 1,255,673	(4.460) 1,288,806	(4.440) 1,289,909	(4.413) 1,305,365	(4.387) 1,333,429	(4.367) 1,347,176	(4.083) 1,257,033
B. REPAS	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
C. Admin. (\ of 1% FDN) Less local share								

In row 10 (average basic cost per pupil), it is seen that the application of differential rates make it possible to increase the level of foundation program support gradually and smoothly over an eight year period; by 1975 and thereafter, all pupils are supported at the desired basic level of approximately $501.69. Similarly in row 15 (grand total expenditure for the foundation program), the total level of support required increases in gradual increments from an estimated $78.8 millions (about the 1965-66 level of expenditure) to

$86.2 millions in 1975; the aggregate increase over the six year period is $7.4 millions, or an average of $1.25 millions per year.

COST PER CLASSROOM UNIT

	Qualified Teacher Classroom Unit	Non-Degree Teacher Classroom Unit
Basic Foundation Program	$12,542	$8,551
Added for Extraordinary Ingredients† of Foundation Program	Transportation: 25 × $ Construction: 25 × $ Debt Service: 25 × $	106 = $2,650 20 = $ 500 50.13 = $1,253 As applicable, up to estimated $4,400
Total (Maximum) Foundation Program	$16,942	$12,951

† Transportation, Debt Service, Capital Construction, as applicable.

Administering the Foundation Program

The proposed foundation program is designed to minimize administrative red tape. However, it will demand a higher order of professional leadership from the Department of Public Instruction, and it will be appropriate to increase the Department's funds so that it may exercise this leadership function.

A basic prerequisite to implementation of the foundation program is the reorganization of many local school districts of North Dakota. To facilitate their reorganization into effective units, the Statewide Study Team recommended that a helpful program of legislation be adopted and that the leadership role of the State Department of Public Instruction be enhanced. Details of these recommendations are presented in the comprehensive State plan document, "Educational Development for North Dakota, 1967-1975: An Overview," a product of the Statewide Study of Education. Specifically, recommendations were made to the State Legislature for laws that would—at the earliest feasible opportunity—place every public school pupil in a 12-grade district, and preferably in a district that would enroll at least 215 students in the upper four grades. Recommendations also were made to the State Department of Public Instruction, especially to establish an appropriate number of regional service centers; through such centers, the Department could facilitate the intensive study that would lead to effective district reorganization. It is anticipated that the State Department—through its discretionary authority in the use of Title III funds under the Elementary and Secondary Act of 1965—could obtain the financial support necessary for this action.

Given appropriate reorganization and an improved personnel situation, the State Department of Public Instruction could administer the proposed foundation program in a manner consistent with the design illustrated in this document. The procedures might be as follows:

* Each biennium, a basic cost per pupil is determined; this unit cost is set at a level that will support the desired basic programs and services. Cost per pupil is convertible into cost per classroom unit; multiplied by the number of classroom units in a district, this would yield a sum which might be called the GROSS ALLOWANCE or GROSS ENTITLEMENT.

* The desired balance is established between local and State (including county and Federal) shares in the support of the basic program of services. This might be 50% each, local and State (including county and Federal). Adjustments will be required in the administration of "categorical" funds received from the Federal Government, since they do not have the effect of general aid; some categorical funds affect only certain types of local districts and others affect programs only for certain kinds of pupils. (Increasingly, however, the State will be able to integrate most if not all Federal financial support for education into the comprehensive State plan. Indeed, North Dakota was the first State to receive an integrated Federal "package" of support, in response to its plan for personnel development and expansion of State leadership services.)

* The local share in the basic program is established in the form of a uniform DEDUCTIBLE MILLAGE that applies to an equalized local tax base. The level of deductible millage is determined by two principal and competing factors. These are:

  + the desire to free as much local millage as feasible, thereby to enable well-organized districts—with local revenues—to enrich the foundation program and/or to introduce new services which are not yet included in the foundation program (for example, public kindergartens).

  + the availability of revenues from non-local sources.

* The State (i.e., non-local) share in the foundation program is the difference between the GROSS ALLOWANCE and the revenues per pupil raised by applying the DEDUCTIBLE MILLAGE to the current local tax base.

* The actual support from non-local funds in any given year (i.e., the actual number of dollars available to be expended from non-local funds in support of the foundation program) is determined by adjusting the relationship between the GROSS ALLOWANCE and the DEDUCTIBLE MILLAGE.

* The State (i.e., non-local) share can be increased or decreaed as needed by these methods:

  + changing the level of the GROSS ALLOWANCE

  + adjusting the level of DEDUCTIBLE MILLAGE

  + combining changes both in GROSS ALLOWANCE and DEDUCTIBLE MILLAGE.

* For the intermediate future, the Statewide Study Team suggests that the GROSS ALLOWANCE be established at or below the level developed in this document (that is, $615 per pupil); the specific level chosen would depend upon the availability of Federal funding, the degree of reorganization, and the precision with which the proposed differential rate can be applied for qualified and non-qualified teachers.

* A DEDUCTIBLE MILLAGE of not less than 46.5 mills (as applied to current assessed valuations) should be considered as a point of departure. This could produce sufficient local revenues in relation to non-local revenue sources; at the same time, it could free an average of 11 mills locally for needed extensions of present programs in early childhood education (e.g., public kindergartens.)

From the vantage point of the local school district, estimates of potential non-local assistance can be calculated by completing this sample worksheet:

A. NUMBER OF CLASSROOM UNITS

1. Elementary Grades (1-8)
   a. Enrollment, Sept. 30: _____
   b. 1/27 × Enrollment = Total Elementary Units = _____
   c. Number of "Qualified Elementary Teacher Units" = Number of Full-time "Qualified" or "Fully Qualified" Teachers = _____
   d. Number of "Non-degree Classroom Units" = Total Units (b) minus Qualified Units (c) = _____
2. Secondary Grades (8-12)
   a. Enrollment, Sept. 30: _____
   b. 1/22 × Enrollment = Total Secondary Units = _____
   c. Number of "Qualified Secondary Teachers Units" = _____
   d. Number of Non-degree Secondary Units = (b) minus (c) = _____

B. GROSS ENTITLEMENT

1. Qualified Teacher Classroom Units
   a. Number of Qualified Elementary Teacher Units (item A-1-c): _____
   b. Number of Qualified Secondary Teacher Units (Item A-2-c): _____
   c. Total Qualified Teacher Classroom Units × $_____
   d. Entitlement, Qualified Teacher Units: _____
2. Non-degree Teacher Classroom Units
   a. Number of Non-degree Teacher Elementary Units (item A-1-d): _____
   b. Number of Non-degree Teacher Secondary Units (item A-2-d): _____
   c. Total Non-degree Teacher Classroom Units × $_____
   d. Entitlement, Qualified Teacher Units: _____

3. All Classroom Units

a. Entitlement, Qualified Teacher Units (item B-1-d): $_____

b. Entitlement, Non-degree Teacher Units (item B-2-d): + _____

c. Gross Entitlement $_____

C. LOCAL AND NON-LOCAL SUPPORT

1. Basic Foundation Program Support

a. Gross Entitlement (item B-3-c): $

b. Minus Local District Share: 46.5 mills × local valuation: — _____

c. State Share (Gross Minus Local Share): $

2. Non-local Support for Extraordinary Services

a. Transportation Allowance @ $106 per Pupil in State-approved plan .....: $

b. Allowance for Potential New Construction @ $20 per pupil .....:

c. Allowance for Debt Service on Outstanding Bonded Debt: .....: _____

d. Total for Extraordinary Services $_____

3. Total State and Local Shares

a. State Share, Basic (item C-1-c): $

b. State Share, Extraordinary (item C-2-d): + _____

c. Total State Share $_____

d. Local Share (item C-1-b) + _____

e. Total Support $_____

* From the vantage point of State Government, the State Department of Public Instruction—through its facilities for planning and moderating and continuing development of the foundation program—should ascertain and recommend to the Legislature each biennium the optimum levels at which the GROSS ALLOWANCE and DEDUCTIBLE MILLAGE should be established. Other professional groups may wish to urge enactment of alternative levels. The final decision in any given biennium, of course, rests with the Legislature. However, the committees of the Legislature should be able to look to the State Department of Public Instruction for equitable analyses of any and all proposed plans involving the foundation program; from the Department, the committees should receive detailed professional analyses of the advantages and disadvantages of alternative plans.

* The State Department of Public Instruction is encouraged to build upon the data base established by the Statewide Study, and to simplify its accounting systems to conform with the

requirements of the new foundation program, if adopted. Moreover, the State Department of Public Instruction should be supported in its professional leadership activities by Legislative appropriations at or about 4% of the total funds to be administered.

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The ideas expressed here are deemed to be valid. Moreover, they are feasible of achievement. Now a serious and systematic review of the proposed new plan of public expenditure should be conducted by all responsible educational agencies and institutions. Following that review, a coordinated and appropriate new program of legislative and administrative action should bring these first vital steps of the plan into reality.